ABSTRACT

The invention relates to compounds of formula 1

$$R_{4}^{-}L$$
 $CH_{2}^{-}R_{3}^{-}$
 R_{1}^{-}
 R_{2}^{-}
1

wherein R₁-R₂ is a guanine derivative; X is oxygen or sulfur; R₃ is a heteroaromatic, unsaturated heterocyclyl or an alkynyl group with the double or triple bond connected to CH₂; R₄ is a linker; and L is a label, a plurality of same or different labels, a bond connecting R₄ to R₁ forming a cyclic substrate, or a further group -R₃-CH₂-X-R₁-R₂. The invention relates also to methods of manufacture of such novel AGT substrates, to intermediates useful in the synthesis of such AGT substrates, and to a method of transferring a label from such AGT substrates to O⁶-alkylguanine-DNA alkyltransferase (AGT) fusion proteins comprising proteins of interest.